

## ABSTRACT

A low-cost communication system utilizing a code division multiple access, which controls scale-up of an apparatus due to the provision of an interference 5 suppressing function in a base transceiver station, prevents the reduction of channel utilization efficiency, and enables a high-quality communication. Conventionally, a signal obtained through an interference cancellation stage process has been processed at subsequent cascade-connected stages. The interference cancellation stage 10 process has been carried out by cascade-connecting several circuits performing the same process in a multi-stage interference-canceling device. However, in the present invention, by performing a demodulation process for 15 generating replica signals, feeding back the replica signals to a correlation circuit for another demodulation process, and repeating the same signal process, the interference cancellation stage process is carried out. Such a configuration enables reduction of hardware.